

APPARATUS FOR ACTIVE COOLING OF AN MRI PATIENT BORE IN CYLINDRICAL MRI SYSTEMS

Abstract

The present invention provides for a cooling system for circulating a coolant to cool the patient bore. In one embodiment, that patient bore consists of two concentric cylinders separated by spacers running either longitudinally or helically. In another embodiment of the present invention, fluid may be passed either helically or longitudinally through tubes bonded to the outer diameter of the patient bore such that the parts of the bore that are exposed to the patient are directly cooled. In a third embodiment, the RF coil could form part of the patient bore, with the helical or longitudinal fluid channels surrounding the patient bore.